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**DISCOVERY MINES
LIMITED**

1970

ANNUAL REPORT

DISCOVERY MINES LIMITED

AS AT DECEMBER 31, 1970

OFFICERS

J. C. BYRNE - - - - - *President*
J. K. B. BOOTH - - - - - *Vice-President*
D. R. McEWEN - - - - - *Secretary-Treasurer*

DIRECTORS

G. H. BEESTON - - - - - Toronto, Ont.
J. K. B. BOOTH - - - - - Toronto, Ont.
J. C. BYRNE - - - - - Toronto, Ont.
E. S. HOLMGREN - - - - - Detroit, Mich.
D. O. MUNGOVAN, Q.C. - - - - - Toronto, Ont.
G. T. SMITH - - - - - Toronto, Ont.
W. TERON - - - - - Ottawa, Ont.

MANAGEMENT

J. C. BYRNE - - - - - Toronto, Ont.
Managing Director
R. J. KILGOUR, P.Eng. - - - - Avoca Mines, Ireland
General Manager

EXECUTIVE ENGINEER

L. A. BEDNARZ, P.Eng. - - - - - Toronto, Ont.

CONSULTANTS

NORMAN W. BYRNE, P.Eng. - - - Yellowknife, N.W.T.
J. K. B. BOOTH, P.Eng. - - - - - Toronto, Ont.

SOLICITORS

MUNGOVAN & MUNGOVAN - - - - - 80 King St. W.
Toronto, Ont.

AUDITORS

COLLINS, LOVE, EDDIS,
VALIQUETTE & BARROW - - - - 110 Yonge St.
Toronto, Ont.

TRANSFER AGENTS AND REGISTRARS

CROWN TRUST COMPANY - - - - - 302 Bay St.
Toronto, Ont.
BANKERS TRUST COMPANY - - - - - New York, N.Y.

BANKERS

ROYAL BANK OF CANADA, Bay and Temperance Branch,
Toronto, Ont.

EXECUTIVE OFFICE

Suite 1011, 2200 Yonge St., Toronto 12, Ont.

ANNUAL MEETING

June 8, 1971, 10:15 a.m., The York Room,
Main Mezzanine, Royal York Hotel, Toronto.

DISCOVERY MINES LIMITED

Directors' Report

TO THE SHAREHOLDERS:

We present herewith the Twenty-Fourth Annual Report of your Company for the year ended December 31, 1970.

The year 1970 was highlighted by the coming into production of the Avoca Mines copper property in which a controlling equity interest is held. Along with its investment in Rayrock Mines, Discovery now has an indirect interest in two base metal producers and in oil and gas production. Interests are also held in several gold prospects which are potentially viable at significantly higher gold prices.

AVOCA MINES CANADA LIMITED

In mid-November, 1970 milling commenced at the copper-pyrites property of Avoca Mines Limited, the wholly owned Irish subsidiary of Avoca Mines Canada Limited. To March 31, 1971 a total of 294,106 dry tons of ore averaging 0.79 per cent copper was treated of which one half of the tonnage came from stoping operations and graded 0.96 per cent, while the balance was derived from low grade surface stockpiles. During these 4.5 months the average daily mill rate was 2,178 tons, and mill recovery 89 per cent. Net concentrate production totalled 9,803 dry short tons having an average grade of 21 per cent copper.

Metallurgical results have been very satisfactory and have on occasion exceeded expectations. This is particularly gratifying since considerable rehabilitation and circuitry changes were implemented in the concentrator, which was originally constructed to process 4,000 tons per day.

Avoca derives its underground ore from two orebodies known as the South and Pond Lodes; the former lends itself to longhole stoping and the latter to the mechanized cut-and-fill method of ore extraction. Production from the higher grade Pond Lode has been modest to date, but will increase sharply once a backfill plant has been installed later this year. The tonnage drilled off in the South orebody is well ahead of mill requirements, and the only deterrent to increased production from underground at this time is the less than reliable performance of the underground conveyor system installed by former operators. Although much time and effort have gone into improving the efficiency of the conveyance, further remedial work is required and is presently underway. Trackless mining has been adopted by Avoca in order to attain maximum productivity and flexibility.

Proven ore reserves in the Pond and South Lodes as at January 1, 1971 have been calculated at 4,140,000 tons averaging 1.13 per cent copper before dilution, while probable reserves are 3,712,000 tons of 0.94 per cent copper.

To supplement the underground source of ore it is proposed to mine by August open pit material from the Cronebane deposit situated about 1¼ miles east of the Avoca mill. Ore reserves

DISCOVERY MINES LIMITED

are conservatively estimated at 500,000 tons of 1.63 per cent copper. Metallurgical test work is in progress and, because of the complex milling characteristics of the Cronebane ore, a separate mill circuit is being prepared. The estimated profit potential of the open pit deposit is considerably greater than that of the lower grade underground copper reserves, and the cost associated with bringing the Cronebane into production should be recovered rather quickly.

Avoca has recently commenced production and stockpiling of pyrite concentrates for sale later this year or early 1972 to a local fertilizer manufacturer who has contracted to purchase 80,000 tons annually for the production of sulphuric acid.

Of the \$6.5 million required to attain production status, Avoca received \$1,995,000 from Discovery Mines of which \$1,500,000 was in return for a major share interest in Avoca, while \$495,000 represented a purchase of 7 per cent Unsecured Subordinated Debentures of Avoca Mines Canada Limited which was accompanied by bonus common shares. The balance of the capital requirements was obtained from the sale of redeemable preference shares, from a public underwriting of shares and debentures, from a private placement of debentures, and from bank loans.

There are a number of areas in which substantial capital expenditures must be made during 1971 of which costs associated with mill tailings disposal, the backfill plant and the open pit project are major items. In the event that cash flow is not generated fast enough to meet the capital expenditure schedule it may be necessary to provide some additional short term finances.

Discovery owns 2,369,470 shares of Avoca Mines Canada representing a 47.4 per cent equity interest. The other major shareholders are The Patino Mining interests, the Superior Oil group, and associated companies of Northgate Explorations; this consortium expended approximately \$1 million during a two year period to March, 1969 on exploration and development of the Avoca property, and it was immediately thereafter that Discovery agreed to operate the mining venture.

RAYROCK MINES LIMITED

Your Company held 1,093,400 shares of Rayrock Mines as at December 31, 1970, equivalent to a 24.5 per cent controlling interest.

For the fiscal year ended October 31, 1970 Rayrock reported a net profit of \$608,935 which was the second highest recorded in the Company's history. Cash flow was \$839,237. Production revenue equalled \$2,369,865 of which metal sales constituted 78 per cent of the total and petroleum sales 22 per cent.

Mining profits are derived from a 23.75 per cent interest in the Icon Sullivan Joint Venture copper operation situated in the Chibougamau region of Quebec. From commencement of production in June, 1967 to March 31, 1971 a total of 790,000 tons of ore grading 3.17 per cent copper has been milled, while ore reserves are estimated at 652,410 tons of 2.33 per cent copper.

The operating performance of the recently installed preconcentrator has been very satisfactory, and a waste rejection in the order of 40 per cent by weight is being attained. The cost saving benefits

DISCOVERY MINES LIMITED

associated with the sink-float plant are translated into a lower cut-off grade thus extending the reserve life of the mine.

It may be of interest to know that Rayrock's financial contribution to the establishment of the Icon Sullivan Joint Venture mine has been returned approximately seven fold as at December 31, 1970.

Rayrock is the operator of three oil producing units in Southwestern Ontario each of which is a waterflood operation. As of last December 15th the Petroleum Division began receiving an additional 25 cents per barrel for its crude oil production.

During the past year Rayrock broadened its exploration exposure through additional syndicate participations. Three of these joint ventures, namely the Icon Syndicate, Caltor Syndicate, and Cordex Syndicate, will spend a minimum of \$700,000 in 1971 on programs in Quebec, western Canada and the western United States respectively. In association with a number of other companies Rayrock is participating in an extensive exploration program in the Yukon Territory.

CAMLAREN MINES LIMITED

Discovery holds a 70 per cent share interest in Camlaren Mines whose gold property in the Northwest Territories remains idle pending a material increase in the gold price. Should this transpire the shaft will be extended to facilitate depth exploration of a high grade gold deposit known as the Hump Vein.

NORITA QUEBEC MINES LIMITED

In January, 1971 Norita Quebec Mines concluded an option agreement with Noranda Exploration Company which calls for Noranda to spend a minimum of \$50,000 on Norita's Matagami area property prior to December 31, 1971. In the event that a total of \$150,000 is spent by the end of 1972 a new company may be incorporated and Norita would be entitled to 25 per cent of the issued capital stock. If the property is brought into production Norita is entitled to receive \$373,484 for preproduction expenditures out of initial profits.

Some years ago diamond drilling indicated 800,000 tons of potential ore grading 0.64 per cent copper, 7.29 per cent zinc, and 0.70 ounces silver per ton with reserves open for expansion.

Shareholders of Norita Quebec are Discovery Mines (13.7 per cent), Amagami Mines (31.5 per cent), and Radiore Uranium Mines (54.8 per cent).

EXPLORATION

Discovery, in association with Canadian Reynolds Metals, Lynx-Canada Explorations, and Dejour Mines, will shortly commence exploration of an optioned base metals prospect situated in the Bathurst region of New Brunswick. Upon completion of 2,000 feet of diamond drilling the group may earn an 80 per cent interest in the property, and upon an expenditure of \$100,000 the interest would increase to 90 per cent.

DISCOVERY MINES LIMITED

An exploration syndicate comprised of Discovery Mines, Home Oil, and Granite Mountain Mines is conducting a prospecting program along a coastal region of British Columbia. Field work commenced in April.

Discovery is a participant in a syndicate which has launched exploration in Western Australia. Several claim groups have been staked, two optioned precious metal properties drilled, and a mineral sands prospect examined during the past year.

In 1970 Discovery, Ashland Oil Canada, Canadian Industrial Gas & Oil, and Tundra Gold Mines financed exploration of an optioned copper-silver prospect located in the Terrace district of British Columbia. No sulphide occurrences of economic importance were encountered in the program of trenching and drilling and, as a consequence, the option was terminated.

GENERAL

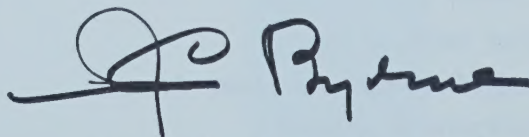
At a Directors' meeting held on April 6, 1971 Mr. H. E. Joudrie and Mr. V. Van Sant, Jr., both of Ashland Oil Canada Limited, were appointed to the Board of Directors of Discovery Mines, to replace Mr. G. H. Beeston and Mr. W. Teron representing Empire Films Limited. The change reflects Ashland's recent purchase of 730,000 shares of Rayrock Mines Limited formerly owned by Empire Films. Rayrock has a 42.5 per cent controlling interest in Discovery, and hence the representation of Ashland on your Board of Directors.

Mr. Joudrie is President and Chief Executive Officer of Ashland Oil Canada Limited, while Mr. Van Sant, Jr., is Executive Vice-President and General Manager, Oil and Gas Division, Ashland Oil Canada Limited.

ACKNOWLEDGMENT

The Directors welcome this opportunity to express their appreciation to the employees of the Company for their efficient service, and to the shareholders for their valued interest and support.

On behalf of the Board of Directors,

A handwritten signature in black ink, appearing to read "H. E. Joudrie", is written over a horizontal line.

President and Managing Director.

April 26, 1971.

DISCOVERY MINES LIMITED

(Incorporated under the laws of Ontario)

Balance Sheet

ASSETS

Current Assets

	1970	1969
Cash	\$ 82,652	\$ 85,582
Short-term notes and certificates, at cost	350,000	900,000
Accounts receivable	29,335	94,471
Other short term investments, at lower of cost or market		20,779
Receivable under the Emergency Gold Mining Assistance Act — estimated		44,618
	<u>461,987</u>	<u>1,145,450</u>

Investment in other companies (note 2)	3,423,647	2,804,997
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Investment in and Advances to Subsidiary Company

Camlaren Mines Limited (note 1)		
Investment in shares, at cost	250,800	250,800
Advances	54,772	56,210
	<u>305,572</u>	<u>307,010</u>

Mining Properties

Mining claims and options — acquired for cash and shares of capital stock as valued by the directors of the company	141,364	141,364
Land, buildings, plant and equipment at cost, less realizations and accumulated depreciation (note 3)	87,710	108,815
Deferred exploration and development expenditures (note 4)	451,364	451,364
	<u>680,438</u>	<u>701,543</u>

Other Assets

Mine stores, at cost	24,900	25,149
Prepaid expenses and sundry deposits	5,198	22,077
Incorporation expense	4,837	4,837
	<u>34,935</u>	<u>52,063</u>
	<u>\$4,906,579</u>	<u>\$5,011,063</u>

DISCOVERY MINES LIMITED

December 31, 1970

LIABILITIES

Current Liabilities

	1970	1969
Accounts payable and accrued expenses	\$ 33,618	\$ 55,061
Unclaimed dividends	5,990	5,990
	<u>39,608</u>	<u>61,051</u>

SHAREHOLDERS' EQUITY

Capital stock (note 7)

Authorized

4,000,000 shares of \$1 par value each

Issued

2,748,773 shares

Contributed surplus

Retained earnings

2,748,773	2,748,773
194,224	194,224
1,923,974	2,007,015
<u>4,866,971</u>	<u>4,950,012</u>

The accompanying notes are an integral part of these financial statements.

Approved on behalf of the Board,

J. C. BYRNE, Director.

D. O. MUNGOVAN, Director.

<u>\$4,906,579</u>	<u>\$5,011,063</u>
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DISCOVERY MINES LIMITED

Statement of Operations

For the Year Ended December 31, 1970

Income	1970	1969
Investment income	\$ 62,363	\$ 115,681
Metal production		234,416
Amount recoverable under the Emergency Gold Mining Assistance Act		49,627
	<u>62,363</u>	<u>399,724</u>
 Expenditure		
Property maintenance, Northwest Territories and Yukon	38,435	1,938
Head office, administrative and general expenses	57,943	63,603
Directors' fees	5,400	6,300
Cost of metal production, including mining, milling, delivery and mint charges		265,046
Mine shut-down expense		81,045
Depreciation on mine buildings and equipment		7,223
	<u>101,778</u>	<u>425,155</u>
Loss before exploration expenditures	39,415	25,431
Exploration expenditures	43,626	46,156
Loss for the year	<u>\$ 83,041</u>	<u>\$ 71,587</u>
Loss per share	<u>\$ 0.03</u>	<u>\$ 0.03</u>

DISCOVERY MINES LIMITED

Statement of Source and Application of Funds

For the Year Ended December 31, 1970

Source of Funds

	1970	1969
Current Operations		
Depreciation and other write-offs	\$ 826	\$ 25,723
Sale of investments	41,227	134,545
Sale of fixed assets	20,277	156,782
Sale of mine stores	249	91,282
Reduction in prepaid expenses and sundry deposits	16,879	11,149
Repayment of advances by subsidiary company	1,438	
Sale of capital stock		18,900
	<u>80,896</u>	<u>438,381</u>

Application of Funds

Net loss for the year	83,041	71,587
Investments in other companies	659,875	1,690,480
Additions to fixed assets		8,907
Advances to subsidiary company		101
Adjustment of Northwest Territories royalty tax of prior years		587
	<u>742,916</u>	<u>1,771,662</u>
Decrease in working capital	662,020	1,333,281
Working capital, beginning of the year	1,084,399	2,417,680
Working capital, end of the year	<u>\$ 422,379</u>	<u>\$1,084,399</u>

DISCOVERY MINES LIMITED

Statement of Retained Earnings

For the Year Ended December 31, 1970

	1970	1969
Balance, beginning of the year	\$2,007,015	\$2,256,373
Loss for the year	83,041	71,587
Write-down of mining claims at the company's inactive mine site to nominal value		131,568
Write-down of mine stores to estimated realizable value		45,616
Adjustment of Northwest Territories royalty tax of prior years		587
	83,041	249,358
Balance, end of the year	\$1,923,974	\$2,007,015

AUDITORS' REPORT

To the Shareholders,
Discovery Mines Limited.

We have examined the balance sheet of Discovery Mines Limited as at December 31, 1970 and the statements of retained earnings, operations and source and application of funds for the year ended on that date. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

In our opinion, these financial statements present fairly the financial position of the company as at December 31, 1970 and the results of its operations and the source and application of its funds for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

COLLINS, LOVE, EDDIS, VALIQUETTE & BARROW,
Chartered Accountants.

Toronto, Canada,
February 19, 1971.

DISCOVERY MINES LIMITED

Notes to the Financial Statements

December 31, 1970

1. The accounts of the subsidiary company, Camlaren Mines Limited, are not consolidated in these financial statements. During 1970 the subsidiary company was inactive.

2. **Investment in other companies:**

	1970	1969
Rayrock Mines Limited — 1,093,400 shares at cost, quoted market value \$1,290,000 (1969 — 1,031,900 shares; quoted market value \$2,003,000)	\$1,151,304	\$1,056,788
Avoca Mines Canada Limited — 2,369,470 shares, at cost, quoted market value \$1,682,000 (1969 — 2,199,942 shares; quoted market value \$2,862,000)	1,553,528	1,466,663
Avoca Mines Canada Limited — \$495,000 7% subordinated debentures due December 31, 1975, at cost	412,484	
Other listed shares, at cost, quoted market value \$72,800 (1969 — \$40,300)	82,639	57,856
Other shares (unlisted or escrowed), debentures, etc., at estimated realizable value	223,692	223,690
	<u>\$3,423,647</u>	<u>\$2,804,997</u>

Because of the number of shares involved, the quoted market values of the investments in Rayrock Mines Limited and Avoca Mines Canada Limited are not necessarily indicative of the amounts which would be realized if they were to be sold.

3. **Fixed assets at mine properties**

Fixed assets at the company's inactive mining properties at La Forma, Yukon Territory and Discovery, Northwest Territories are carried at cost less realizations and accumulated depreciation to shut down dates. Management anticipates final realizations will be in excess of the amount shown.

4. **Deferred exploration and development expenditures**

Deferred exploration and development expenditures of \$451,364 consist of expenditures by a predecessor company on mining claims in the Matagami Lake area of Quebec and other locations. It is the policy of the company to carry these expenditures forward until such time as they can be written off against revenue from these properties.

5. **Remuneration of directors and senior officers**

The aggregate direct remuneration paid to directors and senior officers (as required by the Business Corporations Act, Ontario) for the year ended December 31, 1970 was as follows:

Directors and senior officers	\$ 30,200
Senior employees (not directors or officers)	3,000
	<u>\$ 33,200</u>

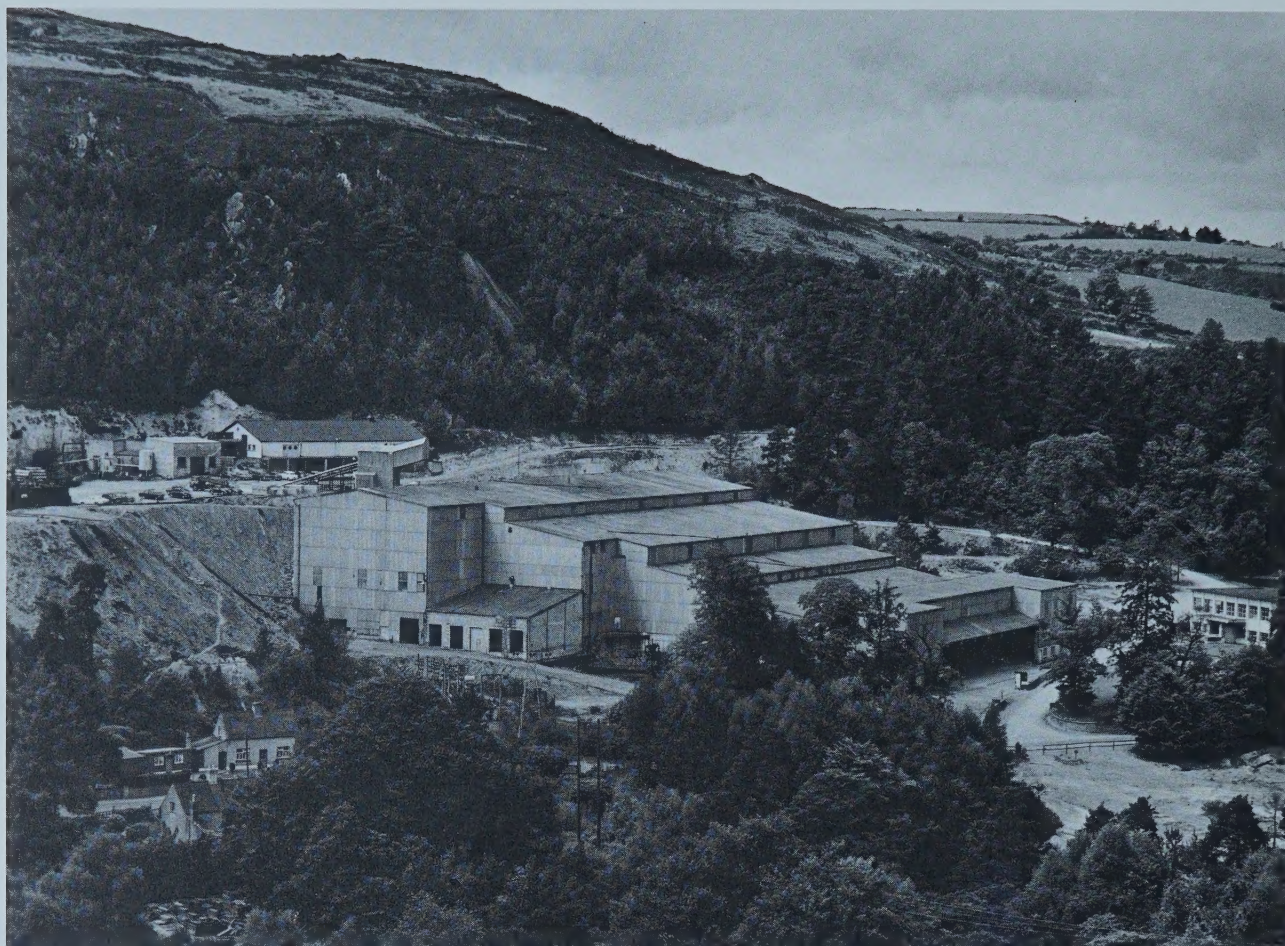
6. **Pension plan**

The company has a contributory pension plan covering four employees. The plan is financed by employee contributions of 5% of earnings and a company contribution which is written off as an expense when paid.

The plan is fully funded in accordance with actuarial calculations of the liability for accrued pension benefits.

7. **Employees' incentive stock purchase options**

Stock purchase options were granted on October 31, 1968 to key employees on a total of 120,000 shares of capital stock at a price of \$1.35 a share, exercisable as to 40% at the end of the first year, as to 30% at the end of the second year and as to 30% at the end of the third year. The said options are cumulative and exercisable at any time to the end of the fifth year. To date, options on 14,000 shares have been exercised.



View of Avoca Mines Concentrator



Loading Avoca Copper Concentrate at Roadstone Harbour

